

ABSTRACT OF THE DISCLOSURE

Provided are a hexagonal boron nitride film having a specific inductance of 3.0 or less, a hexagonal boron nitride film wherein the total content of the bonds between 5 a nitrogen atom and a hydrogen atom and between a boron atom and a hydrogen atom is 4 mol% or less, a hexagonal boron nitride film in which a spacing in the c-axis direction is extended by 5 to 30% but the extension of a spacing in the a-axis direction is limited within 5% and a hexagonal boron 10 nitride film in which the direction of the c-axis is parallel to a substrate. There is also provided a layer dielectric film using each of these hexagonal boron nitride films. Also, there is also provided a method of producing a hexagonal boron nitride film by using an ion deposition method.